Burlington Northern Livingston Shop Complex

Site Response Section

Montana Department of Environmental Quality

Update

February 2006

Livingston Indoor Air Investigation

BNSF Railway Company (BNSF) began the indoor air investigation in December 2005. The investigation includes residences and businesses surrounding the Livingston railyard. The investigation will determine if volatile organic compounds (VOCs) in the Livingston railyard groundwater plume are moving from the groundwater into the homes and businesses surrounding the railyard through vapor intrusion.

Previous investigations indicated that indoor air at some residences contained concentrations of VOCs. Elevated VOC concentrations may be present in a home because of certain items in the home, such as dry-cleaned clothes, new carpet, hobby glues, paint thinners and strippers, and various household cleaners. DEQ required additional investigation to determine if the reported VOC concentrations are a result of groundwater contamination or other indoor sources. To ensure the investigation is thorough, DEQ has required use of the most recent vapor intrusion investigation methods developed by the U.S. Environmental Protection Agency (EPA).

The investigation is being conducted in stages. The first stage (stage I) involved examining current groundwater VOC concentrations to determine the area that is most likely to be affected by these concentrations. Selected locations at which indoor air was previously sampled were also included as required by the Record of Decision. The first round of air samples were collected in mid-December 2005. The results from the first round were compared to screening levels. The December '05 samples indicated several homes and businesses exceeded the screening levels.

The second stage (stage II) involves those residences or businesses that exceeded the screening levels. Those locations will be re-examined to determine whether the VOC concentrations are a result of items within the residences/businesses or a result of vapor intrusion. If the VOC concentration is determined to exceed screening levels as a result of vapor intrusion, BNSF will be required to develop site specific cleanup levels and develop a plan to reduce the risk of VOCs in the indoor air. The study area will also be expanded to adjacent residences and businesses to define the boundary of vapor intrusion.

One example of a method to reduce indoor air VOC risk may be to install an in-home VOC-gas protection system. This would work similar to a radon-mitigation system that includes crack sealing, installation of vapor barriers, and a ventilation system. Any system(s) to reduce indoor air risk will be installed and maintained at no cost to the homeowner. The system(s) would be operated until it was demonstrated that the protection systems are no longer needed.

Background

The BN Livingston Facility is located in and adjacent to Livingston. It includes the Livingston railyard, shop complex, C&P Packing, the Cinder Pile area, and portions of the surrounding area. Soil and groundwater have been impacted by solvents, petroleum, heavy metals, and asbestos.

Want more information about the indoor air investigation? Contact DEQ toll free at (800) 246-8198 (Superfund hotline) or DEQ Project Officer : Jarret Keck (406) 841-5067; Fax (406) 841-5050 Email: JarrettKeck@mt.gov

For More Information

You can review the Final Task I Supplemental Investigation Work Plan for Indoor Air, the Spring 2005 Statement of Work, the Record of Decision, as well as recent groundwater monitoring reports and other documents for the Livingston Shop Complex, at the Information Repositories listed opposite. The Record of Decision is also available online at: http://www.deq.state.mt.us/StateSuperfund/BN_Livingson_ROD/BN_ROD.asp

Information Repositories

Livingston-Park County Library

228 West Callender
Livingston, MT 59047
Telephone (406) 222-0862

Montana Department of Environmental Quality
Remediation Division -
1100 North Last Chance Gulch
Helena, MT 59620-0901
Telephone (406) 841-5000

Renne Library
Montana State University
Bozeman, MT 59715
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